

Remarks/Arguments:

The present invention relates to a substrate for use in tests for detecting a biomolecule. Specifically, an arrangement of biomolecule beads constitutes identification information which identifies the tube that the biomolecule beads are contained in.

On page 2, the Advisory Action maintains the 112 rejection because it is not clear whether the identification information is a further element of the tube or just a function of the beads being arranged in a predetermined order. It is respectfully submitted, however, that the claims are patentable over the art of record for the reasons set forth below.

Kambara teaches a DNA probe array system which consists of a tube containing biomolecule beads and marker beads. Additionally, Hauser also discloses a system containing a tube which contains biomolecule beads and marker beads.

Applicant's invention, as recited by claim 19, includes a feature which is neither disclosed nor suggested by the art of record, namely:

...wherein another arrangement of another set of biomolecule beads and marker beads corresponds to identification information which identifies the tube, and biomolecule attribution information which identifies a type of biomolecule bead.

Claim 19 relates to different arrangement of biomolecule beads within a tube. Specifically, one arrangement of biomolecule beads and marker beads corresponds to identification information which identifies the tube in which the beads are contained. This feature is found in the originally filed Application on at least page 115, lines 11-13. No new matter has been added.

Kambara shows in Fig. 7 and describes in column 6, lines 36-44 and column 11, lines 42-56, a tube (item 7) containing biomolecule beads (item 31) and marker beads (item 32). Additionally, Hauser shows in Fig. 1 and describes on page 15, lines 12-23, a tube (item 12) that also contains biomolecule and marker beads (items 18 and 20). The arrangement of biomolecule beads and marker beads in the Kambara and Hauser references corresponds to a specific specimen which is enclosed in the tube. Kambara and Hauser, however, do not teach a

specific arrangement of the biomolecule and marker beads which identifies the tube itself. Thus, the art of record is **not** able to identify a tube based on an arrangement of beads.

Applicant's claim 19 is different than Kambara and Hauser, because the addition of an arrangement of biomolecule and marker beads corresponding to identification information which identifies the tube itself (*"wherein another arrangement of another set of biomolecule beads and marker beads corresponds to identification information which identifies the tube"*). For example, within a tube there are several different arrangements of biomolecule beads and marker beads which constitute different pieces of information. In conventional systems, an arrangement of the beads may correspond to a specimen within the tube. Applicant, however, has another arrangement of biomolecule beads and marker beads which corresponds to identification information which identifies the tube itself. This feature is supported on page 115, lines 11-13 of the specification (*"this data row contains identification information identifying glass tube 327. Therefore, glass tubes can be identified from each other"*). The feature of the identification information being included in tube 327, is important so that each tube may be correctly identified.

Because Applicant includes the feature of *"wherein another arrangement of another set of biomolecule beads and marker beads corresponds to identification information which identifies the tube"*, that the following advantages are achieved. An advantage is to identify the tube, thus minimizing the possibility of analyzing an incorrect tube. Accordingly, for the reasons set forth above, claim 19 is patentable over the art of record.

Independent claim 21 has been similarly amended to claim 19 to define the tube identification information. Thus, claim 21 is also patentable over the art of record for the reasons set forth above.

Dependent claims 22-24 include all of the features of claim 21 from which they depend. Thus, claims 22-24 are also patentable over the art of record for the reasons set forth above.

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In view of the amendments and arguments set forth above, the above identified Application is in condition for allowance which action is respectfully requested.

Respectfully submitted,



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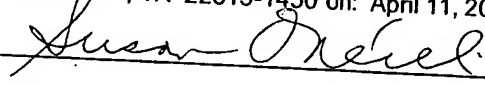
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